

loss of productivity at work. Also, health-related quality of life is almost always affected in individuals with sleep disturbance, namely excessive daytime sleep or difficulties in initiating or maintaining sleep. Besides the scientific evidence, some studies found no significant differences between the groups of participants with and without sleep difficulties, regarding the mental and physical component of QoL. The main objective of the current cross-sectional study was to assess the effects of sleep problems on quality of life of Portuguese normative population.

**Materials and methods:** The non-probability convenience sample included a total of 1119 adults from general Portuguese population. Participants were excluded if they did not answer affirmatively to one of the three DSM-V [1] criteria to clinically diagnose insomnia. Moreover, we assess these symptoms “during the last month” and consequently, the criteria C and criteria D (“The sleep difficulty is present for at least 3 months”) were not considered. Thus, sleep disturbances and not insomnia are evaluated. Final sample was composed by 987 participants that completed a self-administered questionnaire with socio-demographic and sleep-related items. QoL was assessed with WHOQOL-Bref [2–4].

**Results:** Sleep Difficulties Index (SDI) has a significant and negative association with all QoL domains, being Physical Health the domain with the strongest correlation ( $r = -.402, p < .001$ ). Index of Subjective Day Well-Being has a significant positive correlation with Physical Health ( $r = .111, p < .001$ ) and Psychological ( $r = .150, p < .001$ ) domain of QoL. Also, some items about sleep satisfaction are significantly correlated with QoL domains: the quality and depth of sleep and the appropriate number of sleep hours are positively associated with all domains of QoL, with exception of the Psychological domain that is not significantly associated with sleep depth. Physical domain has the strongest association with each variable, namely: sleep quality ( $r = .379, p < .001$ ); sleep depth ( $r = .396, p < .001$ ) and appropriate number of sleep hours ( $r = .147, p < .001$ ). Contrariwise, the number of hours needed to feel good is not significantly correlated with QoL.

**Discussion and conclusions:** Perceived sleep difficulties are inversely related to QoL, i.e. greater sleep difficulties are associated with lower QoL in the psychological, physical, social relations and environmental factors domains. The physical domain is the one that is most affected by sleep satisfaction, reinforcing the importance of a satisfying sleep for a daily physical well-being.

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## References

- [1] American Psychiatric Association. Manual de diagnóstico e estatística das perturbações mentais (texto revisto). Lisboa: Climepsi Editores. 2002;4.
- [2] Vaz Serra A, Canavarro MC, Simões M, et al. Estudos psicométricos do instrumento de avaliação da qualidade de vida da Organização Mundial de Saúde (WHOQOL-Bref) para Português de Portugal. *Psiquiatria Clín.* 2006;27:41–49.
- [3] Group TW. The World Health Organization quality of life assessment (WHOQOL): development and general psychometric properties. *Soc Sci Med.* 1998;46(12):1569–1585.
- [4] Whoqol Group. Development of the World Health Organization WHOQOL-BREF quality of life assessment. *Psychol Med.* 1998;28(3):551–558.

## Sleep quality in the general Portuguese population

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**Introduction:** Epidemiological data from Portugal found that 10.1% of the sample obtained reported global sleep dissatisfaction and 28% showed one or more symptoms of insomnia at least 3 nights per week [1]. Sleep difficulties have a significant impact on individual functioning and quality of life (QoL), resulting in decreased ability to perform daily and professional activities [2]. In order to extend the study of sleep difficulties in Portuguese population, the main objective of the current study is to characterize sleep patterns and sleep difficulties and to identify possible psychosocial variables that may influence them.

**Materials and methods:** The sample is composed by 1119 Portuguese adults. The current study has an observational, descriptive and cross-sectional design. As part of a convenience sample, all participants signed informed consent and completed the questionnaire, which includes questions regarding socio-demographic features, sleep patterns, sleep difficulties, global functioning and sleep satisfaction.

**Results:** The majority of the participants are female ( $n = 685, 61.2\%$ ), with ages between 18 and 25 years old ( $n = 260, 23.4\%$ ), married or partnered ( $n = 569, 51.7\%$ ) and high school graduates ( $n = 466, 42.1\%$ ). The sleep-related questionnaire presented the following results: (a) sleep patterns: The majority of the participants usually have 6–8 h of sleep during the week ( $n = 698, 62.9\%$ ) and they take only 1–15 min to fall asleep ( $n = 490, 44\%$ ). The majority of participants reported that they wake up during the night ( $n = 791, 70.7\%$ ) and before the time they needed ( $n = 741, 66.2\%$ ); (b) sleep difficulties: 314 (28.2%) participants reported sleep disturbances, and from this group, 171 (46.8%) are reasonably concerned with the sleep disorder; (c) global functioning: most of participants, never or rarely perceived difficulties in staying awake while studying or working ( $n = 668, 60.5\%$ ) and frequently have energy to perform activities ( $n = 519, 47.1\%$ ); (d) sleep

satisfaction: 468 (41.9%) individuals considered 7–8 h a day as the appropriate sleep time, 504 (45.2%) perceived good quality of sleep and 546 (48.9%) participants reported that their number of sleep hours is, frequently or always, appropriated. The mean of total score of Sleep Difficulties Index (SDI) [3] is 1.97 ( $SD = .56$ ;  $Min = 0$ ;  $Max = 4$ ), suggesting that most of participants have some (but not several) sleep difficulties. There are significant differences on SDI scores between gender [ $F(1,1117) = 40.378$ ,  $p < .001$ ] age groups [ $F(7,1103) = 3.495$ ,  $p = .001$ ] and physical activity [ $F(1,1107) = 9.277$ ,  $p = .002$ ]. Therefore, the score of SDI is likely to increase with age, and mostly after 57 years. Also, women ( $M = 2.59$ ,  $SD = .517$ ) and participants who do not engage in physical activity ( $M = 2.55$ ,  $SD = .529$ ) have higher scores of sleep difficulties. Men have significantly higher sleep difficulties and wake up during the night more often, in comparison with women.

**Discussion and conclusions:** The Portuguese population has a moderate rate of sleep difficulties. Besides the reported difficulties, participants perceived lower effects of sleep disturbances on daily life. Women, individuals with age after 57 years, and who do not engage in physical activity perceived higher sleep difficulties.

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## References

- [1] Ohayon MM, Paiva T. Global sleep dissatisfaction for the assessment of insomnia severity in the general population of Portugal. *Sleep Med.* 2005;6(5):435–441.
- [2] Bolge SC, Doan JF, Kannan H, Baran RW. Association of insomnia with quality of life, work productivity, and activity impairment. *Quality Life Res.* 2009;18(4):415.
- [3] Gomes ACA. Sono, sucesso académico e bem-estar em estudantes universitários; 2006.

## The lived experience of the person in critical situation who was cared in an intensive care unit

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**Introduction:** Being in an ICU is an abrupt and unexpected situation, reflecting a unique event for the Person in Critical Condition; it changes temporarily their life projects. The aim of this study is, to explore the lived experience by the Person in Critical Condition who was cared in an ICU.

**Materials and methods:** Study within the qualitative paradigm using a phenomenological descriptive approach by Amadeo Giorgi [1,2]. We used the in depth unstructured interview as a source of access to the lived experience of 12 participants aged between 27 and 77 years. The data was collected between October 2012 and December 2013.

**Results:** It was possible to identify the essential structure that reflects the nature of the lived experience by the PSC as a process of health-illness transition marked by total despair, distress and disbelief in the future. This structure consisted of 3 components and each component consisted of four key elements. (1) Feeling trapped – the loss of control over the own body; 1.1 – Tremendous shock of waking up in ICU, 1.2 – the suffering of the body invaded by the technique, 1.3 – the body exposed to others, 1.4 – the threatened identity. (2) Between life and death, 2.1 – the fear in the announced death presence, 2.2 – the anguish of the night, 2.3 – transformation of the perception of the lived time, 2.4 – surrounded by noise and alarms. (3) The need for safety; 3.1 – the continuous presence of professionals, 3.2 – the family as a safe haven, 3.3 – available information about their situation, 3.4- hope and internal strength.

**Discussion and conclusions:** This process of health-illness transition experienced by the PSC during hospitalization in the ICU allows us to uncover the hospitalization violence marked by the distress and despair of the participants upon waking up in the ICU, one of the most aggressive, austere, and frightening hospitalization environments, surrounded by equipment and health care professionals. It is scary, exasperating for the participant. Depending on other people to maintain, one's existence described as living in a limit situation. This patient is vulnerable and fragile as his existence compromised and death becomes a possibility. Children are crucial to the preservation of their existence. In addition, lack of information about their clinical situation, the professionals talked about them but not to them, they were invisible, they tried to listen, they needed that information to help them to situate in the new lived reality. They feel that they have been a new opportunity to maintain their existence, eventually succeeding in regaining harmony with their suffering, giving it meaning in their existence and allowing them to continue with their normal course of being a being-in-the-world. The lived experience of the participants shows that caregivers need to look for the uniqueness, sense and meaning of the health situation in their existence and, together, be capable of the care they need.

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